



Dryden Organizational Procedure

Code S

Quality Assurance & Safety, Health, & Environmental Offices Review for All Types of Procurement Requests Including Credit Card Purchases

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Electronically approved by
Director, Safety & Mission Assurance

1.0 PURPOSE OF DOCUMENT

This Dryden Organizational Procedure (DOP) provides instructions for Quality & Industrial Safety Specialist reviewing procurement requests at DFRC.

2.0 SCOPE & APPLICABILITY

This DOP applies to all procurements made at Dryden. These procurements include those initiated in SAP, credit card procurements, and all other types of DFRC Code A purchasing methods.

3.0 PROCEDURE OBJECTIVES

- Ensure that adequate quality assurance and applicable Safety, Health, and Environmental requirements are applied to all DFRC procurements prior to releasing the procurement requests to vendors.

4.0 RELEVANT DOCUMENTS

4.1 Authority Documents

CFR Title 48 Chapter 1 NHB 5100.4b	Federal Acquisition Regulations NASA FAR Supplement
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4.2 Applicable Documents

NPR 1441.1D	NASA Records Retention Schedules
DCP-A-001	Using The Procurement System
DCP-A-007	Credit Card Purchases by Non-Contracting and Contracting Office Personnel
DCP-S-006	Quality Assurance Audit

5.0 WAIVER AUTHORITY

No waivers to the requirements of this procedure will be granted by Code SQ or SH.

6.0 ABBREVIATIONS, ACRONYMS, & DEFINITIONS

6.1 Abbreviations – None

6.2 Acronyms

AS 9100	ISO Aerospace Quality Management System Standard Series
CO	Contracting Officer
GSI	Government Source Inspection
ISO	International Organization of Standards
MSDS	Material Safety Data Sheet
PO	Purchase Order
POC	Point of Contact
PR	Purchase or Procurement Request
QA	Quality Assurance
QAS	Quality Assurance Specialist
SAP	The letters stand for the company that wrote the software for the IFMP electronic database used for procurement of supplies and Services. SAP is part of the Core Financial Module of IFMP.
SH	Safety, Health and Environmental Office
SME	Subject Matter Expert
SQ	Quality Assurance Office

6.3 Definitions

Procurement or Purchase Request	The document prepared by the requiring activity that (1) describes the supplies or services to be acquired, (2) certifies the availability of funds, and (3) includes other information and approvals necessary for the CO to initiate an acquisition action.
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7.0 PROCEDURES / GUIDANCE

The IFMP electronic database, SAP, is used for PRs. Holders of Government credit cards use the Bank Card system, and the procurement shall be done in accordance with DCP-A-007 and this DOP.

The purchaser will request from SQ and/or SH POC the required SQ and/or SH requirements as needed within the guidelines of this DOP, the SAP process, and DCP-A-007, Credit Card Purchases by Non-Contracting Personnel, and DCP-A-001, Using The Procurement System.

To ensure that the appropriate SQ or SH requirements are added to procurements, the SQ/SH specialist should ask the purchaser for any needed information that has not already been supplied.

7.1 SQ Review

As a guide, see Section 9.0, Note 1 for the Quality Assurance requirements and Note 2 for Safety, Health, and Environmental Office review requirements. The QA attachments are hyperlinked to the QA attachments at the SQ WEB site.

The Quality Assurance specialist for SQ will review DFRC procurement requests (including, but not limited to PR's credit card purchases, work agreements, blanket POs, or inter-agency agreements) for the following criteria:

- A. Is the procurement for support of an aerospace project or support of DFRC assets?
- B. Is the procurement for equipment, supplies, or services that require QA requirements?
- C. Does it involve Safety, Health, and Environmental related requirements as a condition of procurement?
- D. If the responses to any of the above questions are true, then
 - 1) For PR's in SAP, identify the QA requirements that are applicable in the Notes block of the SAP, attach any applicable QA Attachments, and release the PR for SQ per SAP requirements.

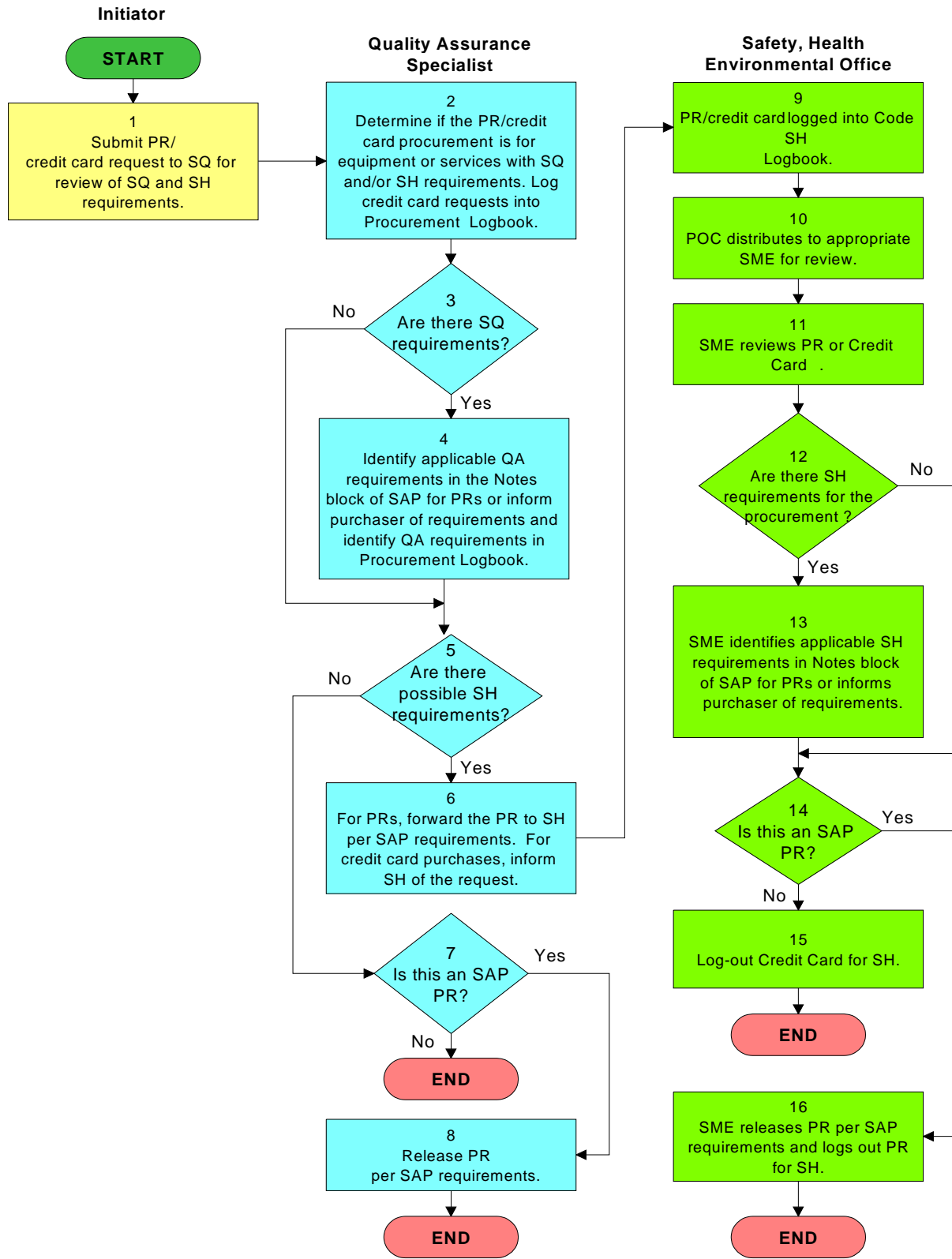
If it involves Safety, Health, and Environmental requirements, release by forwarding the PR to SH to complete the review per the SAP requirements.
 - 2) For credit card purchases and other procurements, log-in to the QA Procurement Logbook, review the request, inform the purchaser of any QA related requirements, and identify them in the Procurement Logbook. If there are possible SH requirements, inform SH of the procurement request.

7.2 SH Review

As a guide, refer to Section 9.0, Note 2 for typical materials, chemicals, etc. that require industrial hygiene requirements.

- A. The appropriate SH POC will log the PR in the SH logbook. The POC will distribute the PR, credit card or other type procurement request to the appropriate SME.
- B. The SME will review the PR and apply the necessary SH requirements in the Notes block of the SAP or inform the purchaser of SH related requirements and track in the local log/record book.
- C. For PR's in SAP, release it for SH per SAP requirements upon completing the PR review.

8.0 FLOWCHART



9.0 NOTES

Note 1: (SQ) Typical Items requiring Quality Assurance approval

ITEMS	Typical QA Requirements
Any item for DFRC flight use	
• Adhesives	(MSDS Shelf Life Q-6)
• All electronic hardware	(Q-9,Q-10)
• Batteries	(Q-10, If Flight) (Q-6) (MSDS)
• Bolts	(Q-18)
• Breathing oxygen gas/liquid	(Q-5,Q13, MSDS)
• Calibrated tools	(Q-16)
• Cleaners	(MSDS Shelf Life Q-6)
• Composite materials	(Q-10 If Flight)
• Compressed gases	(Q-10 for flight use & MSDS Q-6)
• Controllers	(Q-16)
• Crimpers	(Q-16)
• Electrolytes	(MSDS Q-6)
• Explosive devices	(Q-17, Notify explosives safety officer, Q-6 MSDS)
• Fasteners	(Q-18)
• Film	(Q-6)
• Film processing materials	(MSDS & Shelf Life Q-6)
• Flight equipment	(Q-10)
• Flight items (aircraft components)	(Q-10)
• Gauges	(Q-16)
• Hoses	(Q-6, If Flight)
• Inks	(MSDS Shelf Life Q-6)
• LOX compatible parts/cleaning/lubrication	(Q-10)
• Machine Parts	(Q8)
• Metal angles	(Q-3)
• Metal bars	(Q-3)
• Metal beams	(Q-3)
• Metal forgings and extrusion	(Q-3)
• Metal sheets	(Q-3)
• Metal spools	(Q-3)
• O-rings	(Q-6, Q-12) If Flight)
• Paints	(MSDS Shelf Life Q-6)
• Power supplies	(Q-16)
• Rivets	(Q-18)
• Screws	(Q-18)
• Seals	(Q-6,Q12)

- Solvents (MSDS Shelf Life Q-6)
- Test equipment (Q-16)
- Torque devices (Q-16)
- Transmitting equipment (Q-10, Contact DFRC Freq. manager)
- Wire (Q-7 for continuous wire spools)
- Wire strippers (Q-16)

In addition, Procurement documents shall contain provisions for the following:

1. Procurement Source Quality Activity

- (a) DFRC shall contractually require, where appropriate and beneficial to DFRC, compliance with product, process, and system quality requirements. The type and extent of quality requirements depends on the particular acquisition and may range from inspection at time of acceptance to a requirement for the contractor's implementation of a comprehensive program for controlling quality. Quality requirements appropriate for aerospace application shall include consideration of NASA workmanship standards, NASA parts standards, and NASA recommended practices for contract quality and supplier assessment.
- (b) DFRC shall contractually require, where appropriate and beneficial to DFRC, compliance with, or certification to, a quality system standard, in solicitations and contracts for complex or critical items when the technical requirements of the contract require control of such things as work operations, in-process controls, and inspection; or attention to such factors as organization, planning, work instructions, documentation control, and advanced metrology. Quality system standards shall be based on the ISO 9000 series of standards. ISO 9000 shall be supplemented by the AS 9100 series of standards for acquisitions involving the manufacture, test, and/or operation of mission critical flight hardware. The determination of third party certification shall be based on the suitability of certification to the contract and the risk/cost to the government when government resources are used to provide an equivalent level of quality system verification. For standard length contracts (3 years or more), involving critical flight hardware/operations, third party certification is recommended.

- 2. Basic Technical Requirements – Procurement documents shall specify or refer to technical requirements for articles, materials, or services to be provided by a procurement source. Applicable revisions shall also be indicated and documents provided
- 3. Detailed Quality Requirements – The following detailed quality requirements, as necessary, shall be additionally included or technical documents containing these requirements shall be referred to. Applicable revisions of referenced documents shall be indicated and documents provided as necessary to the procurement source.

- (a) Changes – The procurement source shall be required to notify DFRC of any proposed changes in design, fabrication methods, or processes approved by DFRC, including changes, which may affect the quality or intended end-use of the item, and obtain written approval of the change from DFRC before making the change. Changed articles shall be identified differently from previous articles. When a proprietary item is procured by DFRC, the procurement source shall be required to notify DFRC of changes in its design, fabrication methods or processes.
- (b) Purchased Raw Materials – Purchased raw materials shall be accompanied with chemical and/or physical test results. (QA-3)
- (c) Raw Materials Used in Purchased Articles – Tests performed on specimens or detailed analyses of procurement source acceptance test results on all raw materials that are required to satisfy specification requirements and which are employed in the fabrication of articles obtained from procurement sources shall be made available to DFRC upon request.
- (d) Preservation, Packaging, Packing, and Shipping – Requirements for preservation, packaging, packing, and shipping of articles and materials shall be specified or referenced. (Q-6)
- (e) Age Control and Life Limited Products – Records for articles and materials having definite characteristics of quality degradation or drift with age and/or use shall indicate the date and test time or cycle at which useful life was initiated, the life or cycles used, and the date and test time or cycle at which useful life will be expended. When appropriate, specify that the articles and materials exhibit similar information. The procurement source shall ensure removal or rework of such articles and materials are required. (Q-6)
- (f) Identification and Data Retrieval – Identification and data retrieval requirements shall be specified. (Q-11)
- (g) Inspection and Test Characteristics – Characteristics to be subjected to inspections or tests by the procurement source shall be specified. (Q-8)
- (h) Inspection and Test Records – Inspection and test records to be maintained by the procurement source to provide evidence of inspections and tests shall be clearly specified. Records to be provided to DFRC or source inspection personnel shall be specified. (Q-10)
- (i) Resubmission of Nonconforming Articles or Materials – Nonconforming articles and materials returned to the procurement source by DFRC and subsequently resubmitted by the procurement source to DFRC shall bear adequate identification of such resubmission either on the article or material or on procurement source records. Reference shall be made to DFRC's nonconformance document and evidence provided that causes for nonconformances have been corrected and actions taken to preclude recurrence.

- (j) Government Source Inspection (GSI) – When DFRC elects to perform Government inspection at a procurement source, the following statement shall be included in the procurement document: “All work on this order is subject to inspection and test by the Government at any time and place. The DFRC quality representative or the quality representative who has been delegated NASA quality assurance functions on this procurement shall be notified immediately upon receipt of this order. This quality representative shall also be notified 48 hours in advance of the time articles or materials are ready for inspection or test.” (Q-2)
- (k) Procurements Other Than Those Requiring GSI – Procurements that do not require Government Source Inspection shall include the following statement: “The Government has the right to inspect any or all of the work included in this order at the supplier’s plant.”
- (l) Procurement Source Data Package – The total data package requirements of the supplied item, including records and historical data requirements, shall be specified. These requirements shall be adequate to satisfy acceptance of the supplied item as well as satisfy the applicable data requirements for the end-item as specified.
- (m) Process Specifications of Procurement Sources – A listing of critical processes shall be specified.
- (n) Pressure Vessel Historical Data Requirements – Historical data maintenance on each pressure vessel shall be specified as applicable. The data shall be maintained and compiled for inclusion into the acceptance data package, as applicable.
- (o) Cleanliness Control – Detailed cleanliness control shall be specified as applicable.
- (p) Ordnance Data Requirements – Data maintenance on each ordnance device shall be specified as applicable. The data shall be maintained and compiled for inclusion into the acceptance data package and to support lot flight certification. (Q-17)

Note 2: (SH) Typical items requiring Safety, Health, & Environmental Hygiene review

- All chemicals, paints, solvents, adhesives
- Any item requiring MSDS
- Any item with discharge to sewer (storm or sanitary) soil, or the air
- Composite fibers
- Compressed Gases
- Equipment using chemicals (ie. solvent stills, bead blasting media equipment)
- Ergonomic equipment
- Fire suppression agent
- Generators

- Internal combustion engines
- Large storage containers (ie. Connex, flammable cabinets)
- Lasers and laser equipment
- Personal protective equipment
- Portable buildings
- Portable Fire Extinguishers including Wheel type
- Pressure vessels
- Radioactive material
- Radiofrequency transmitters & transmitting equipment
- Respirators
- Systems furniture
- UPS – Uninterruptible Power Supply
- Ventilation equipment

MSDS Requirements for the following type items require that MSDS records are attached with shipment.

Any item containing a chemical and hazardous materials.

Examples:

- Acids
- Alkalines
- Batteries
- Cleaning agents
- Compressed gas
- Electrolytes
- Explosive devices
- Film processing material
- Tanks, fuels, or oil

QUALITY ATTACHMENTS INDEX

- Q-1 Articles on this order require verification by NASA QA. Contact NASA QA at DFRC for mandatory requirements.
- Q-2 Articles on this order require verification by Government Representatives. Delegation required; be specific in the type and extent of support requested.
- Q-3 Each shipment of materials requires a chemical/physical analysis report be included.
- Q-4 Articles on this order require a Certification of Conformance with the article and delivery.
- Q-5 Articles ordered require a Certification of Conformance from this distributor to accompany the items on this order.
- Q-6 Articles ordered require proper packaging and preservation per manufacturing requirements as well as drawing and specific specification requirements. These are minimum shelf life requirements. Materials containing chemicals, pressurized vessels, or hazardous materials shall include the Manufacturers Safety and Data Sheet (MSDS).
- Q-7 Procurement of Electrical Wire
- Q-8 Inspection and test data records are required to be delivered with this order.
- Q-9 The electrical/electronic parts on this order must be bought from an approved EEE part manufacturer. All non-standard parts must have a Non-Standard Parts Approval Report prior to use.
- Q-10 Verification of Serviceability must accompany this part.
- Q-11 Identification and Data Retrieval data must accompany this part.
- Q-12 Age Control of Synthetic Elastomers
- Q-13 Processing of Breathing Oxygen Equipment
- Q-14 Article and Material Marking Requirements
- Q-15 Triclorotriflouroethane Warning
- Q-16 Metrology
- Q-17 Identification, Marking, and Shipping Requirements for Pyrotechnic Materials

Q-18 Required documentation for Aircraft Fasteners

Q-19 Performance Based Specifications

Q-20 ESD requirement for Shipping and Receiving of NASA Hardware

10.0 METRICS & TREND ANALYSIS

Audits per DCP-S-006 are performed to ensure that adequate SQ and SH requirements are identified on procurements. The nonconformance will be tracked as findings noted during audits and analyzed for trends and reported to Code SQ management by the QA Office Quality Engineer.

11.0 MANAGEMENT RECORDS & RECORDS RETENTION

- 1) SQ Office – Hard copy PRs and Credit Card purchase review records are maintained in the QA Procurement Log book.
- 2) SH Office – SH safety requirement reviews are retained in the SH log book for procurements.

All records are historically filed per NPR 1441.1D.

Document History Log

This page is for informational purposes and does not have to be retained with the document.

Status Change	Document Revision	Effective Date	Page	Description of Change
Baseline		6-30-04		Replaces DCP-S-003.
Admin change		7-8-04	2	Corrected formatting error. Purpose of Document was missing number 1.0. Insertion of number rolled subsequent numbers ahead by one number to correct misnumbering.